

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of treating cancer in a patient in need thereof comprising, administering an effective amount of at least one compound to the patient in an amount sufficient to treat the cancer; wherein the at least one compound is selected from the group consisting of

~~The use of a molecule chosen from:~~

~~—the~~ a MMP-2 metalloprotease;

~~[[ - ]]~~ a fragment of said MMP-2 metalloprotease comprising a T epitope;

a fragment of said metalloprotease comprising a T epitope presented by MHC I;

a fragment of said metalloprotease comprising a T epitope presented by MHC II;

~~[[ - ]]~~ a polynucleotide encoding said metalloprotease;

a polynucleotide [[or]] encoding said fragment of said MMP-2 metalloprotease comprising a T epitope; and

combinations thereof.

~~for obtaining a medicinal product for use in antitumor immunotherapy.~~

Claim 2 (Currently Amended): An immunogenic peptide ~~constituting~~ comprising a T epitope presented by MHC I, ~~characterized in that it consists of~~ that comprises a fragment of 8 to 11 consecutive amino acids of the MMP-2 metalloprotease.

Claim 3 (Currently Amended): The immunogenic peptide as claimed in claim 2, ~~characterized in that it is defined by~~ wherein the fragment comprises the sequence GLPPDVQRV (SEQ ID NO: 1).

Claim 4 (Currently Amended): A polynucleotide encoding ~~[[a]]~~ the peptide as claimed in ~~either one of claims 2 and 3~~ claim 2.

Claim 5 (Currently Amended): A composition comprising at least one peptide as claimed in claim 2 and an adjuvant ~~either one of claims 2 and 3, or a polynucleotide as claimed in claim 4~~.

Claim 6 (Currently Amended). ~~The use of a peptide as claimed in either one of claims 2 and 3, or of a polynucleotide as claimed in claim 4, for obtaining a medicinal product~~ A method of treating cancer in a patient in need thereof comprising, administering an effective amount of the immunogenic peptide of claim 2 to the patient in an amount sufficient to treat the cancer.

Claim 7 (Currently Amended): ~~The use as claimed in claim 6, characterized in that said medicinal product is for use in the treatment of melanomas~~ A method of treating cancer in a patient in need thereof comprising, administering an effective amount of the immunogenic peptide of claim 3 to the patient in an amount sufficient to treat the cancer.

Claim 8 (Currently Amended): An isolated antigen-presenting cell expressing an MHC I molecule, ~~characterized in that it~~ wherein the isolated antigen-presenting cell is loaded, in vitro, with ~~[[a]]~~ the peptide as claimed in either one of claims 2 and 3 claim 2.

Claim 9 (Currently Amended): An antigen-presenting cell expressing an MHC I molecule, ~~characterized in that it~~ wherein the antigen-presenting cell is transfected with a polynucleotide comprising a sequence encoding an immunogenic peptide as claimed in ~~either one of claims 2 and 3~~ claim 2.

Claim 10 (Currently Amended): ~~The use of the MMP-2 metalloprotease, or of a fragment thereof, for detecting cytotoxic T lymphocytes directed against MMP-2 in a biological sample obtained from an individual suffering from melanoma~~ An antigen-presenting cell expressing an MHC I molecule, wherein the antigen-presenting cell is transfected with a polynucleotide comprising a sequence encoding an immunogenic peptide as claimed in claim 3.

Claim 11 (Currently Amended): A method of preparing cytotoxic T lymphocytes directed against the MMP-2 metalloprotease, comprising selecting ~~characterized in that it comprises the selection,~~ from cytotoxic T lymphocytes taken from a patient suffering from melanoma, ~~[[of]]~~ those cytotoxic T lymphocytes that recognize a compound selected from the group consisting of the MMP-2 protein, or and a fragment of the MMP-2 protein thereof, and ~~the multiplication~~ multiplying, in vitro, ~~[[of]]~~ the selected T lymphocytes thus selected.

Claim 12 (Currently Amended): A preparation of cytotoxic T lymphocytes directed against the MMP-2 metalloprotease prepared by the method of , ~~which preparation can be obtained by means of the method as claimed in claim 11.~~

Claim 13 (Currently Amended): A ~~medicinal product, comprising an active ingredient chosen from:~~

- ~~—an immunogenic peptide as claimed in either one of claims 2 and 3;~~
- ~~—an antigen presenting cell as claimed in either one of claims 8 and 9;~~
- ~~—a preparation of cytotoxic T lymphocytes as claimed in claim 12~~ composition comprising the peptide of claim 3 and an adjuvant.

Claim 14 (New): The method of claim 1, wherein the cancer is melanoma.

Claim 15 (New): The method of claim 6, wherein the cancer is melanoma.

Claim 16 (New): The method of claim 7, wherein the cancer is melanoma.

Claim 17 (New): A composition comprising the polynucleotide of claim 4 and an adjuvant.

Claim 18 (New): An isolated antigen-presenting cell expressing an MCH I molecule, wherein the antigen-presenting cell is loaded, in vitro, with a peptide as claimed in claim 3.

Claim 19 (New): A polynucleotide encoding the peptide of claim 3.